REMARKS

Applicant is in receipt of the Office Action mailed November 28, 2006. Claims 2 and 31 have been cancelled. Claims 1, 3-30, and 32-40 have been amended. Claims 1, 3-30, and 32-42 are pending in the case. Reconsideration of the present case is requested in light of the following remarks.

Priority

The Office Action asserts that U.S. Patent Application 10/149,149 (henceforth, "'149") does not provide full support for the claimed limitations recited in independent claims 1 and 33-40. Applicant respectfully disagrees, and notes that the Examiner has not indicated which limitations of claim 1 (and 33-40) the Examiner considers to not be supported, but has instead listed all the features of claim 1.

Applicant respectfully submits that '149 supports the limitations of (amended) claim 1 at least in the following text:

displaying a first node in a graphical program, wherein the first node has a first node icon which is displayed in the graphical program, and wherein the first node icon has a first appearance;
('149) p.25:3-4:

In step 502, a first timing node may be displayed in the graphical program, e.g., on a display of the computer 82.

p.29:22-24

In an embodiment where the timing node includes an icon, configuring the timing node may include changing the appearance of the timing node icon to visually indicate the timing type and/or the timing functionality.

receiving first user input invoking display of a plurality of function type options for the first node;
p.25:11-12:

In one embodiment, the timing type options may be presented in response to user input.

displaying the plurality of function type options for the first node in response to the first user input;

p.25:10-11:

In step 504, a plurality of timing type options for the first timing node may be displayed on the display.

receiving second user input specifying a function type from the plurality of function type options;

p.25:21-23:

In response to the display of the timing type options of 504, user input may be received specifying a timing type from the plurality of timing type options, as indicated in 506.

determining program instructions based on the second user input, wherein the determined program instructions are executable to provide functionality in accordance with the specified function type;

p.25:25-p.26:6:

Then, in 508, <u>a second timing node may be determined based on the user input specifying the timing type</u>, and in 510, the second timing node may be displayed on the display in the graphical program in place of the first timing node. The second timing node may be operable to configure timing functionality for the graphical program in accordance with the timing type. For example, the second timing node may be operable to be connected to one or more function nodes in the graphical program to configure timing functionality in accordance with the specified timing type. In other words, as described above, user input to the graphical program may be received connecting the second timing node to the one or more function nodes in the graphical program, e.g., by "wiring" the nodes together. <u>During execution of the graphical program, the second timing node may then configure timing functionality for the one or more function nodes.</u>

p.26:28-p.27:5

In another embodiment, in addition to the second timing node icon, <u>the second timing node may include program instructions and/or data structures for implementing timing configuration in accordance with the specified timing type</u>. For example, the second timing node may include program instructions and/or data structures in a text-based programming language such as C or C++ (or any other programming language) which is compilable, interpretable, and/or executable to configure timing for the graphical program, e.g., upon or during execution of the graphical program.

associating the determined program instructions with the first node;

wherein, when the first node executes in the graphical program, the determined program instructions are operable to execute to provide the functionality in accordance with the specified function type.

p.28:28-p.29:13

In one embodiment of the present invention, rather than replacing the timing node with a different timing node in response to the timing type selection, the timing node may be configured according to the timing type, where, after being configured, the timing node may be operable to configure timing functionality for the first graphical program in accordance with the timing type. In other words, the timing node may be modified to include the appropriate functionality for the specified timing type. For example, <u>in response to the user input specifying the timing type, a timing graphical program may be determined which corresponds to the timing type. The timing graphical program may then be associated with the timing node</u>, where during execution of the timing node, the timing graphical program executes to configure timing functionality for the first graphical program in accordance with the timing type. Said another way, <u>program instructions and/or data structures may be associated with the timing node, where the program instructions and/or data structures are executable to configure timing functionality for the first graphical program in accordance with the timing type</u>. In other words, during execution of the timing node, the program instructions and/or data structures may execute

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to configure timing functionality for the first graphical program in accordance with the timing type.

In one embodiment, <u>configuring the timing node may include creating the program instructions and/or data structures in the memory of the computer system, then associating the program instructions and/or data structures with the timing node</u>, as described above.

wherein the first node has a first node icon which is displayed in the graphical program, wherein the first node icon has a first appearance;

wherein the program instructions are further executable to perform:

changing the first node icon to a second appearance based on the second user input, wherein said changing the first node icon to a second appearance includes displaying an image corresponding to the specified function type.

p.29:22-27

In an embodiment where the timing node includes an icon, configuring the timing node may include <u>changing the appearance of the timing node icon to visually indicate the timing type and/or the timing functionality</u>. For example, the node icon's color, shape, and/or design may be modified to reflect the type or functionality of the node. In one embodiment, the terminals of the node (icon) may be modified in accordance with the specified type.

As may be seen, at least the above quoted text of '149 supports all the features and limitations of amended claim 1. Applicant thus respectfully requests that the Examiner acknowledge the priority date of June 24, 2002.

Objections

Figures 5 and 8 were objected to as being too small. Figures 12 and 14 were objected to as being too dark.

Applicant has amended the Figures accordingly, and has further amended Figure 13 (on the same sheet as Figure 12) and Figure 15 (on the same sheet as Figure 14) per standard PTO drawing requirements.

Applicant thus requests removal of the objections to the Figures.

The Specification was objected to for omitting a U.S. Provisional Application Serial Number, and for not properly indicating trademarked terms. Applicant has amended the Specification accordingly, as indicated above, and respectfully requests removal of the objection to the Specification.

Claims 3, 15, and 29-30 were objected to for various typographical and cut/paste errors. Applicant has amended claims 15 and 29-30 accordingly, and has cancelled claim 2, and so claim 3 should depend from claim 1, as currently written. Applicant respectfully requests removal of the objection to these claims.

Section 101 Rejections

Claims 1-30 and 33-35, and 31 and 37, were rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter, specifically, to a medium, and a carrier medium, respectively. Applicant has cancelled claim 31, and amended the others of these claims accordingly, referring instead to a "computer-accessible memory medium that stores program instructions executable by a processor...".

Claims 36 and 38 were rejected for being directed to non-statutory subject matter, specifically, to a graphical program node. Applicant has amended these claims accordingly, referring instead to "computer-accessible memory medium that implements a graphical program node".

Applicant thus respectfully requests removal of the section 101 rejection of these claims.

Section 102 Rejections

Claims 1-42 were rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 6,064,812 to Parthasarathy et al. ("Parthasarathy"). Claims 2 and 31 have been cancelled, thus rendering their rejections moot. Applicant respectfully submits that the claims as currently amended include features and limitations not taught or suggested by Parthasarathy.

As the Examiner is certainly aware, anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim. *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984). The identical invention must be shown in as complete detail as is contained in the claims. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Amended claim 1 recites:

1.   A computer-accessible memory medium that stores program instructions executable by a processor to perform:

displaying a first node in a graphical program, wherein the first node has a first node icon which is displayed in the graphical program, and wherein the first node icon has a first appearance;

receiving first user input invoking display of a plurality of function type options for the first node;

displaying the plurality of function type options for the first node in response to the first user input;

receiving second user input specifying a function type from the plurality of function type options;

determining program instructions based on the second user input, wherein the determined program instructions are executable to provide functionality in accordance with the specified function type;

associating the determined program instructions with the first node, wherein, when the first node executes in the graphical program, the determined program instructions are operable to execute to provide the functionality in accordance with the specified function type; and

changing the first node icon to a second appearance based on the second user input, wherein said changing the first node icon to a second appearance includes displaying an image corresponding to the specified function type.

Applicant respectfully submits that Parthasarathy nowhere teaches or suggests **changing the first node icon to a second appearance based on the second user input,**

wherein said changing the first node icon to a second appearance includes displaying an image corresponding to the specified function type, as recited in claim 1.

The Examiner cites Figure 12 (first node icon), Figure 13 (second node icon), and col.17:3-43, in asserting that Parthasarathy discloses **wherein the first node has a first node icon which is displayed in the graphical program, wherein the first node icon has a first appearance; wherein the medium is further configured to perform: changing the first node icon to a second appearance based on the second user input**.

Applicant respectfully notes that in Parthasarathy, in response to user input selecting a method (for the automation invoke node), a label displaying the method name is appended to the bottom of the node. Nowhere does Parthasarathy teach or suggest displaying an *image* corresponding to the function type.

Thus, Applicant respectfully submits that Parthasarathy fails to teach or suggest all the features and limitations of claim 1, and so claim 1 and those claims dependent therefrom are patentably distinct and non-obvious over the cited art, and are thus allowable.

Claims 33, 34, 35, 39, and 40 each includes similar limitations as claim 1, but are specifically directed to a read node, a write node, and a channel creation node, respectively. Applicant thus respectfully submits that the arguments provided above with respect to claim 1 apply with equal force to claims 33, 34, 35, 39, and 40. Moreover, Applicant respectfully submits that Parthasarathy nowhere discloses a read node, write node, or channel creation node, at all.

Thus, for at least the reasons provided above, claims 33, 34, 35, 39, and 40, and those claims respectively dependent therefrom, are patentably distinct and non-obvious over the cited art, and are thus allowable.

Claims 36 and 38 are directed to a graphical program node with similar features and limitations as claim 1, but where changing the node icon to a second appearance includes changing the color, shape, and/or design of the first node icon. As argued above, Parthasarathy's automation invoke node is modified by appending a label to the

node, and so Parthasarathy does not teach or suggest this feature of claims 36 and 38. Thus, for at least the reasons provided above, claims 36 and 38, and those claims respectively dependent therefrom, are patentably distinct and non-obvious over the cited art, and are thus allowable.

Claim 37 includes similar limitations as claim 1, but where, in response to second user input specifying a function type from the plurality of function type options, a second node is determined based on the specified function type, and the first node in the graphical program is replaced with the second node, where the second node is operable to provide functionality for the graphical program in accordance with the specified function type.

The Office Action asserts that Parthasarathy discloses this feature, citing Figure 12, Figure 17, col.17:3-22, and col.20:23-40. Applicant has reviewed the cited portions of Parthasarathy closely, and can find no description of replacing one node with another node in response to user input selecting a function type. For example, col.17:3-22 describes an automation property node displaying a property in response to user input selecting the property, and col.20:23-40 describes context sensitive help display, neither of which involves replacing a node based on user selection of a function type.

Thus, for at least the reasons provided above, claim 37 and those claims dependent therefrom are patentably distinct and non-obvious over the cited art, and are thus allowable.

Removal of the section 102 rejection of claims 1, 3-30, and 32-42 is earnestly requested.

Claims 1 and 33-40 were rejected under 35 U.S.C. 102(b) as being anticipated by US Patent Application Serial No. 2001/0024211 to Kudukoli, et al. ("Kudukoli"). Applicant respectfully submits that the claims as currently amended include features and limitations not taught or suggested by Kudukoli.

For example, nowhere does Kudukoli teach or suggest **displaying a first node in a graphical program, wherein the first node has a first node icon which is displayed in the graphical program, and wherein the first node icon has a first appearance;**

and **receiving first user input invoking display of a plurality of function type options for the first node,** as recited in claim 1. Cited [0136]-[0140], describing Figure 6 (blocks 300 and 302), read thusly:

> [0136] FIG. 6--Programmatically Modifying a Graphical Program
> [0137] Another embodiment of the invention comprises a system and method for programmatically modifying a graphical program. FIG. 6 is a flowchart illustrating one embodiment of a method for programmatically modifying a graphical program.
> [0138] In step 300, a GPG program such as described above may be executed.
> [0139] In step 302, the GPG program may receive initial program information specifying functionality of a graphical program (or graphical program portion), similarly as described above.
> [0140] In step 304, the GPG program may programmatically generate a graphical program (or graphical program portion) to implement the specified functionality, similarly as described above.

As may be seen, the cited text (and Kudukoli in general) in no way describes user input invoking display of a plurality of function type options for a first node. Rather the cited portions describe a graphical program generation program receiving initial program information specifying functionality of a graphical program (or graphical program portion) (block 300 of Figure 6), and the graphical program generation program programmatically generating a graphical program (or graphical program portion) to implement the specified functionality (block 302 of Figure 6).

Thus, Kudukoli fails to teach or suggest this feature of claim 1.

Kudukoli also fails to disclose **displaying the plurality of function type options for the first node in response to the first user input; and receiving second user input specifying a function type from the plurality of function type options,** as recited in claim 1.

In asserting that Kudukoli discloses these features, the Office Action cites Figure 6 (blocks 304-306), and [0140]-[0141], which reads:

> [0140] In step 304, the GPG program may programmatically generate a graphical program (or graphical program portion) to implement the specified functionality, similarly as described above.
> [0141] In step 306, the GPG program may receive subsequent program information, e.g., program information specifying modified functionality of the graphical program.

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As may be seen, the cited text (and Kudukoli in general) fails to teach or suggest these features. For example, nowhere does the cited text (or Kudukoli in general) describe displaying function types for a node, nor receiving user input specifying a function type from among the displayed function types.

Thus, Kudukoli fails to teach or suggest this feature of claim 1.

Kudukoli also fails to teach or suggest **determining program instructions based on the second user input, wherein the determined program instructions are executable to provide functionality in accordance with the specified function type**, as recited in claim 1.

In asserting that Kudukoli discloses these features, the Office Action cites Figure 6 (block 306), and [0141], which reads:

> [0141] In step 306, the GPG program may receive subsequent program information, e.g., program information specifying modified functionality of the graphical program.

Clearly, nowhere does the cited text (or Kudukoli in general) describe or mention determining program instructions in response to user input selecting a function type from a plurality of displayed function types for a node. Applicant notes that in Kudukoli, a graphical program (or graphical program portion) is generated in response to initial program information specifying functionality of the graphical program (or portion), and then modified based on subsequent program information. Nowhere does Kudukoli describe the received program information (initial or subsequent) as being user input selecting or specifying a function type for a node from among a plurality of displayed function types, and so Kudukoli does not, and cannot, teach or suggest these features of claim 1.

Nor does Kudukoli disclose **associating the determined program instructions with the first node, wherein, when the first node executes in the graphical program, the determined program instructions are operable to execute to provide the functionality in accordance with the specified function type**, as recited in claim 1.

In asserting that Kudukoli discloses these features, the Office Action cites Figure 6 (blocks 306-308), and [0141] – [0142], which reads:

[0141] In step 306, the GPG program may receive subsequent program information, e.g., program information specifying modified functionality of the graphical program.
[0142] In step 308, the GPG program may programmatically modify the graphical program (or graphical program portion) to implement the specified modified functionality.

Applicant respectfully submits that the cited portions of Kudukoli (and Kudukoli in general) fail to teach or suggest associating program instructions with a first node, where the program instructions were determined in response to user input selecting a function type from a plurality of displayed function types for the node. Rather, the cited portions disclose a graphical program generation program modifying a graphical program (or portion) in response to program information specifying modified functionality of the graphical program. This modifying is nowhere described as associating program instructions with a node that is already displayed in a graphical program, nor where the program instructions were determined in response to user input selecting a function type from a plurality of displayed function types for the displayed node.

Thus, Applicant respectfully submits that Kudukoli fails to teach or suggest these features of claim 1.

Moreover, Applicant further submits that Kudukoli nowhere teaches or suggests **changing the first node icon to a second appearance based on the second user input, wherein said changing the first node icon to a second appearance includes displaying an image corresponding to the specified function type**, as recited in amended claim 1. Kudukoli nowhere describes the programmatic modification of the graphical program as including such a change of appearance of a node, particularly based on a specified function type selected by a user from a plurality of displayed function types.

Thus, Kudukoli also fails to teach or suggest this feature of amended claim 1.

Thus, Applicant respectfully submits that, for at least the reasons provided above, claim 1 and those claims dependent therefrom are patentably distinct and non-obvious over the cited art, and are thus allowable.

Claims 33, 34, 35, 39, and 40 each includes similar limitations as claim 1, but are specifically directed to a read node, a write node, and a channel creation node, respectively. Applicant thus respectfully submits that the arguments provided above with respect to claim 1 apply with equal force to claims 33, 34, 35, 39, and 40. Moreover, Applicant respectfully submits that Kudukoli nowhere discloses a read node, write node, or channel creation node, at all.

Thus, for at least the reasons provided above, claims 33, 34, 35, 39, and 40, and those claims respectively dependent therefrom, are patentably distinct and non-obvious over the cited art, and are thus allowable.

Claims 36 and 38 are directed to a graphical program node with similar features and limitations as claim 1, but where changing the node icon to a second appearance includes changing the color, shape, and/or design of the first node icon. Kudukoli does not teach or suggest that the programmatic creation or modification of the graphical program includes such a change of appearance of a node, and thus does not teach or suggest this feature of claims 36 and 38. Thus, for at least the reasons provided above, claims 36 and 38, and those claims respectively dependent therefrom, are patentably distinct and non-obvious over Kudukoli, and are thus allowable.

Claim 37 includes similar limitations as claim 1, but where, in response to second user input specifying a function type from the plurality of function type options, a second node is determined based on the specified function type, and the first node in the graphical program is replaced with the second node, where the second node is operable to provide functionality for the graphical program in accordance with the specified function type.

The Office Action asserts that Kudukoli discloses this feature, citing the Examiner's arguments provided with respect to Parthasarathy. Applicant respectfully

submits that these arguments do no properly apply to Kudukoli. Moreover, Applicant has reviewed the Kudukoli closely, and can find no description of replacing one node with another node in response to user input selecting a function type as claimed.

Thus, for at least the reasons provided above, claim 37 and those claims dependent therefrom are patentably distinct and non-obvious over Kudukoli, and are thus allowable.

Removal of the section 102 rejection of claims 1 and 33-40 is earnestly requested.

Applicant also asserts that numerous ones of the dependent claims recite further distinctions over the cited art. However, since the independent claims have been shown to be patentably distinct, a further discussion of the dependent claims is not necessary at this time.

CONCLUSION

Applicant submits the application is in condition for allowance, and an early notice to that effect is requested.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above-referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. The Commissioner is hereby authorized to charge any fees which may be required or credit any overpayment to Meyertons, Hood, Kivlin, Kowert & Goetzel P.C., Deposit Account No. 50-1505/5150-80201/JCH.

Also filed herewith are the following items:

☐ Information Disclosure Statement
☒ Four (4) replacement sheets containing amended Figures 5, 8, and 12-15.
☐ Power of Attorney By Assignee and Revocation of Previous Powers
☐ Notice of Change of Address
☐ Other:

Respectfully submitted,

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